

# ZFP91 (K-13): sc-132881



The Power to Question

## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF91, also known as PZF or FKSG11, is a member of the Krüppel C<sub>2</sub>H<sub>2</sub>-type zinc-finger family of transcriptional regulators. Localized to the nucleus, ZNF91 is expressed ubiquitously, with particularly high levels in testis. Two isoforms (namely isoform 1 and isoform 2) of ZNF91 exist as a result of alternative splicing events, and isoform 2 is testis-specific. ZNF91 has been identified to play a role in transcriptional regulation, cell proliferation and anti-apoptotic events.

## REFERENCES

1. Bellefroid, E.J., Marine, J.C., Matera, A.G., Bourguignon, C., Desai, T., Healy, K.C., Bray-Ward, P., Martial, J.A., Ihle, J.N. and Ward, D.C. 1995. Emergence of the ZNF91 Krüppel-associated box-containing zinc-finger gene family in the last common ancestor of anthropoidea. *Proc. Natl. Acad. Sci. USA* 92: 10757-10761.
2. Khil, P.P., Lebedev, I.u.B. and Sverdlov, E.D. 1998. Long terminal repeat of the human endogenous retrovirus HERV-K in the intron of the ZNF91 gene. *Bioorg. Khim.* 24: 126-131.
3. Iuchi, S. 2001. Three classes of C<sub>2</sub>H<sub>2</sub> zinc-finger proteins. *Cell. Mol. Life Sci.* 58: 625-635.
4. Nishimura, T., Narita, T., Miyazaki, E., Ito, T., Nishimoto, N., Yoshizaki, K., Martial, J.A., Bellefroid, E.J., Vissing, H. and Taniyama, T. 2001. Characterization of the human Fc  $\gamma$  RIIB gene promoter: human zinc-finger proteins (ZNF140 and ZNF91) that bind to different regions function as transcription repressors. *Int. Immunol.* 13: 1075-1084.
5. Unoki, M., Okutsu, J. and Nakamura, Y. 2003. Identification of a novel human gene, ZFP91, involved in acute myelogenous leukemia. *Int. J. Oncol.* 22: 1217-1223.
6. Hamilton, A.T., Huntley, S., Tran-Gyamfi, M., Baggott, D.M., Gordon, L. and Stubbs, L. 2006. Evolutionary expansion and divergence in the ZNF91 sub-family of primate-specific zinc-finger genes. *Genome Res.* 16: 584-594.
7. Huntley, S., Baggott, D.M., Hamilton, A.T., Tran-Gyamfi, M., Yang, S., Kim, J., Gordon, L., Branscomb, E. and Stubbs, L. 2006. A comprehensive catalog of human KRAB-associated zinc-finger genes: insights into the evolutionary history of a large family of transcriptional repressors. *Genome Res.* 16: 669-677.
8. Vogel, M.J., Guelen, L., de Wit, E., Peric-Hupkes, D., Lodén, M., Talhout, W., Feenstra, M., Abbas, B., Classen, A.K. and van Steensel, B. 2006. Human heterochromatin proteins form large domains containing KRAB-ZNF genes. *Genome Res.* 16: 1493-1504.

## CHROMOSOMAL LOCATION

Genetic locus: ZFP91 (human) mapping to 11q12.1; Zfp91 (mouse) mapping to 19 A.

## SOURCE

ZFP91 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZFP91 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132881 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ZFP91 (K-13) is recommended for detection of ZFP91 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ZFP family members.

ZFP91 (K-13) is also recommended for detection of ZFP91 isoforms 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ZFP91 siRNA (h): sc-106726, ZFP91 siRNA (m): sc-155592, ZFP91 shRNA Plasmid (h): sc-106726-SH, ZFP91 shRNA Plasmid (m): sc-155592-SH, ZFP91 shRNA (h) Lentiviral Particles: sc-106726-V and ZFP91 shRNA (m) Lentiviral Particles: sc-155592-V.

Molecular Weight of ZFP91: 63 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.